REMARKS

The above amendment and these remarks are responsive to the Office Action of 24 Apr 2007 by Examiner David Robertson.

Claims 1, 3-15, and 19-32 are in the case, none as yet allowed.

Claim Objections

The Examiner has, quite appropriately, objected to the numbering of the claims.

Applicants have amended claims 4 and 7 to correct the numbering.

Claim Rejections - 35 USC 103

8. Claims 1, 3-5, 7, 8, 14, and 15, and also claims 19-23, 25, and 26, have been rejected under 35 U.S.C. 103(a) over Grenches et al. ("Demanufacturing of Information Technology Equipment", in Proceedings of the 1997 IEEE International Symposium on Electronics and the Environment, 1997, pgs. 157-160) in view of Fields et al. (U.S. Patent 5,111,391) and further in view of Suzuki et al. (U.S. Patent 6,226,617).

Applicants have amended independent claims 1, 14, and 19 and thereby claims (3-5, 7, 8, 15, 22-23, 25, and 26) which depend from them.

Whereas applicants' invention describes a process or model for planning workload in a demanufacturing operation, the Grenchus article describes a physical and operational setup and disassembly sequence. Grenchus indicates that to obtain an outlook (forecast) of incoming material, contact is made with a single customer to obtain a single outlook to estimate the amount, type and timing of the single shipment (page 2, section III, Customer Shipment, paragraph 1). In Grenchus there is no teaching that the information will be used in workload planning nor that any historical data or experience will be incorporated into the workload planning process.

On the other hand, applicants' invention describes a method for a workload projection model for a demanufacturing enterprise which has many customers (page 10, lines 12-14; page 11, lines 19-21). Applicants' invention also teaches how a customer representative establishes a plan for future shipments with each customer, utilizes monthly updates, prior customer product shipment experience and/or new demanufacturing product prototyping to establish and adjust complexity factors that are used in a model to project workload (page 7, lines 5-17; page 11, line 22 to page 13, line 2). Additionally, the invention not only provides an outlook for the month but also an estimate for the rest of the year in order to provide advanced warning and the time to preclude any future staffing or capacity issues (page 12, lines 18-21).

Further with respect to Grenchus, Section V, Staging, paragraphs 1 and 2 imply that the customer product input has only two product categories (complexities): small machines (PC's and desktops) and medium or large machines. On the other hand, applicants' invention describes an unique complexity factor determined for each customer, and that is used in the workload planning process -- this also allows an increased level of granularity or specificity to be assigned to each customer which improves planning accuracy (page 3, lines 12-13; page 6, lines 16-17; page 10, lines 10-14).

Further with respect to Grenchus, Section IX, Challenges and Actions, in paragraph 1 states that "Aside from the daily changes in product mix, new personnel... some common issues are:..." This implies that planning problems still existed at the time of the writing of the paper. Applicants' invention provides a workload projection model that accommodates such changes and daily production flux. Also, in the same Section IX, order of disassembly and level of tear down are also identified as challenges. Applicants' invention provides that expected work content and resulting items (saleable items, commodities, trash, etc.) for each customer are determined by dismantling machines as prototypes, obtaining associated work content and using that information in an overall workload projection and planning process (page 8, lines 12-20).

With respect to Fields, Fields describes a scheduling model which assumes that staff and quantity of resources needed have already been determined and known to be available for the scheduling of a series of tasks (column 2, lines 21 and 22). On the other hand, applicants' invention

provides a planning model that actually projects the quantity and staff resources needed in the first place (page 12, line 18 to page 13, line 2).

With respect to Suzuki, Suzuki teaches that information for treatment is affixed to the individual article so that proper and appropriate treatment can be executed (Col. 2, lines 15-18; Col. 7, lines 11-12). As distinguished from determining treatment methods based on data affixed to each individual machine returned for end of life processing (as in Suzuki), applicants' invention determines a work content and associated complexity factor for each customer (whose input may contain a variety of products). Further, it is expected that not all producers or manufacturers will utilize the Suzuki process of affixing data to each individual machine, and therefore some other planning methods will be needed to project workload, and these are not taught by Suzuki.

Further with respect to Suzuki, Suzuki indicates (Col. 3, lines 2-4) that ultimately the entire selection process for a treatment is determined which is lowest in regards to the overall operating cost. Also, Suzuki indicates (Col. 3, lines 9-12) that operating cost, and hence the time estimation for treatment, is determined on the basis of dimension or weight of the article. On the other hand, aside from lowest cost demanufacturing, applicants' invention provides customers the ability to prescribe specific requirements or work content (page 8, lines 9-11; page 10, lines 10-14; page 11, line 19 to page 12, line 1). Such specific requirements may include specific asset protection requirements or destruction or impairment

techniques, regardless of any financial benefit or cost. These types of customer requests are demanded by customers to preclude secondary channel sales, ensure data security and privacy, and therefore have to be accommodated in any workload planning model. Therefore, applicants' invention does not use only cost to determine the treatment selection process, but offers flexibility to address other specific customer requests and factors (that is, critical operations) to determine the best treatment option to be used in the workload planning model. (These critical operations are described in Grenchus, et al. U.S. Patent 7,054,824 at Col. 5, lines 1-16; U.S. patent application Serial No. 09/524,366, entitled "Method of Demanufacturing a Product" by E. J. Grenchus, et al., incorporated by reference in the present application at page 1, lines 5-10, and page 8, lines 12-20, and incorporated in the specification of the present application by this amendment.)

With respect to the combination of Grenchus, Fields, and Suzuki, applicants have discussed above significant distinctions with respect to the amended claims. None of these references, or their combination, teaches, for example, a workload planning process based upon the summation of results for a plurality of customers, with volume, critical factors, and complexity defined for each customer and projected into the future at a plurality of checkpoints for workload and staffing planning.

Applicants request that claims 1, 3-5, 7, 8, 14, and 15, and also claims 19-23, 25, and 26, be allowed.

9. Claims 6 and 24 have been rejected under 35 U.S.C.

103(a) over Grenchus, in view of Fields, and further in view of Suzuki, and further in view of Lee and Ishii ("Demanufacturing Complexity Metrics in Design for Recyclability" in Proceedings of the 1997 IEEE International Symposium on Electronics and the Environment, 1997, pgs. 19-24).

Claims 6 and 24 depend from base claims 1 and 19, respectively, and are distinguished from Grenches, Fields, and Suzuki as previously described.

Lee and Ishii is cited in combination with Grenches, Fields and Suzuki for teaching accumulating historical data for determining complexity factor leading to better designs, lower complexity factor, and lower overall cost of demanufacturing. However, Lee and Ishii in this combination does not provided additional teachings which together with Grenches, Fields, and Suzuki teach applicants claimed invention, including a workload planning process based upon the summation of results for a plurality of customers, with volume, critical factors, and complexity defined for each customer and projected into the future at a plurality of checkpoints for workload and staffing planning.

Applicants request that claims 6 and 24 be allowed.

10. Claims 9-13 and 27-32 have been rejected under 35 U.S.C. 103(a) over Grenchus, in view of Fields, and further in view of Suzuki, and further in view of Yuri et al. (U.S. Patent 6,249,715).

Claims 9-13 depend from base claim 1, claims 27 and 28

from base claim 19. Claim 32 has been amended as previously described with respect to claims 1, 14, and 19. Without specifying the specific teaching, Yuri is cited generally as teaching optimizing work distribution according to time variation factors based on complexity and the skill level of the workforce. However, even in combination with Grechus, Fields, and Suzuki, Yuri does not teach a workload planning process based upon the summation of results for a plurality of customers, with volume, critical factors, and complexity defined for each customer and projected into the future at a plurality of checkpoints for workload and staffing planning.

Applicants request that claims 9-13, and 27-32 be allowed.

SUMMARY AND CONCLUSION

Applicants urge that the above amendments be entered and the case passed to issue with claims 1, 3-15, and 19-32.

The Application is believed to be in condition for allowance and such action by the Examiner is urged. Should differences remain, however, which do not place one/more of the remaining claims in condition for allowance, the Examiner is requested to phone the undersigned at the number provided below for the purpose of providing constructive assistance and suggestions in order that allowable claims can be presented, thereby placing the Application in

condition for allowance without further proceedings being necessary.

Sincerely,

Edward J.Grenchus, Jr. et al.

By

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